

### REMARKS

The Applicants hereby submit the present Amendment And Request For Reconsideration in response to the Office Action of 2 May 2006 for the above-referenced patent application, entry of which is earnestly solicited.

In the present Amendment, claims 1, 4, 8-9, 11-13, 16-17, 19-20, 22-28, and 30 have been amended; claims 5, 7, 10, 15, and 18 have been canceled; and new claims 30-31 have been added. Thus, claims 1-4, 6, 8-9, 11-14, 16-17, 19-30 as amended and new claims 30-31 are pending in the application for consideration. The Applicants respectfully request entry of the Amendment and reconsideration of these pending claims.

No new matter has been entered by such amendment; many of the inserted limitations are merely drawn from dependent claims of the application. New limitations of claims 27-28 are taken from the subject matter related to the method of FIG. 6. New claims 30-31 are based on previous dependent claim 10.

*In the Office Action mailed on 2 May 2006, the Examiner rejected claims of the application under 35 U.S.C. § 102 and 103 based on Gill (U.S. Patent No. 5,825,595) and other references including Hedberg (U.S. Patent No. 4,577,240) and Jove et al. (U.S. Patent No. 5,523,898). In response, the Applicant respectfully submit that the pending claims are allowable over the prior art of record at least for the following reasons.*

For one, new claims 30-31 have been added which include the limitations of previous dependent claim 10, which has been indicated as allowable by the Examiner in the Office Action. Thus, new claims 30-31 are similarly allowable over the prior art of record.

Further, the prior art of record fails to adequately teach, suggest, or render obvious the present invention as defined by claims 1-4, 6, 8-9, 11-14, 16-17, 19-30 as amended. The present invention as defined by the claims are directed to a preamplifier circuit having first and second input ports; a first bias source configured to provide a first read sensor current/voltage bias at the first input port for a read operation; a second bias

source configured to provide a second read sensor current/voltage bias at the second input port for the read operation which is zero or negligible; where the first input port is configured to receive a first signal during the read operation which includes a read sensor data signal and an interference signal, and the second input port is configured to receive a second signal during the read operation which includes the interference signal but not the read sensor data signal; and a subtractor having first and second inputs coupled to the first and the second input ports, respectively.

In relation to these claims, the prior art of record fails to teach or suggest “a first bias source configured to provide a first read sensor current/voltage bias at the first input port for read operations” in combination with “a second bias source configured to provide a second read sensor current/voltage bias at the second input port for the read operations, the second read sensor current/voltage bias being zero or negligible”.

As indicated by the Examiner in the Office Action, the Gill reference fails to teach that the second read sensor current/voltage bias is zero or negligible. The Applicants agree. The Examiner also indicates, however, that the Jove et al. reference teaches that the second read sensor current/voltage bias is zero or negligible. The Applicants respectfully disagree.

The Jove et al. reference fails to teach that the second read sensor current/voltage bias is zero or negligible. In fact, the Jove et al. reference states that the bias should be a non-zero value. See e.g. Jove et al. in column 1 at lines 48-50: “[t]he method includes the step of reducing the magnetoresistive read sensor bias from a value representative of the normal read value to a predetermined value greater than zero” and at lines 55-56: “[the] level is preferably about 30% of the level applicable during the read mode when the MR read sensor is operative.” In contrast, the Applicants claim in claims 1-4, 6, 8-9, 11-14, 16-17, 19-30 that such bias is zero or negligible.

Furthermore, the teachings of the Jove et al. reference use such predetermined bias value when in a write mode operation. See e.g. Jove et al. in column 1 at lines 58-60: “the bias current is effectively reduced during substantially all periods when the MR head is in the inductive write mode of operation.” In contrast, the Applicants claim in

claims 1-4, 6, 8-9, 11-14, 16-17, 19-30 that such bias is applied during "read operation." As apparent, the use of such a zero or negligible bias value during read operation is not taught or suggested in the prior art. Also, there is no suggestion or motivation to combine the teaching of Jove et al. of use of a predetermined bias value during *write operation* with the teaching of the Gill reference of use of a predetermined bias value during *read operation*.

*In the same Office Action mailed on 2 May 2006, the Examiner objected to claim 11 as having repeated limitations. In response, the Applicant amends claim 11 in accordance with similar limitations in claim 19.*

The Applicants respectfully requests entry of the amendment and reconsideration of the claims as amended. Based on the above, the Applicant submit that all pending claims are allowable over the prior art of record and that the present application is now in a condition suitable for allowance.

Thank you. Please feel free to contact the undersigned if it would expedite the prosecution of the present application.

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Respectfully submitted,

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